

DOCKET NO.: CSI-0036
Application No.: 10/792,189
Office Action Dated: September 20, 2005

PATENT

Amendments to the Drawings

The attached sheets of drawings includes changes to Figures 1-7. The sheets, which include Figures 1-7, replace the original sheets including Figures 1-7.

Attachment: Replacement Sheets

REMARKS

Claims 1-36 are pending. Claims 1, 4, 6, 8, 9, 21, 23, 25, 31, and 33-36 have been amended, claims 2, 3, 5, 10, 11, 22, 24, 29, and 32 have been canceled, and new claims 37-43 have been added in this response. Claims 1, 4, 6-9, 12-21, 23, 25-28, 30, 31, and 33-43 therefore will be pending upon entry of the above amendments.

The drawings have been objected to because the reference character "122c" used in paragraph 0033 of the specification does not appear in the figures. A corrected version of Figure 2 submitted herewith includes the reference character 122c.

The specification has been objected to because of an informality appearing in line 6 of paragraph 0033. The specification has been amended as suggested by the Examiner to correct this informality.

Claim 4 has been objected to because the terms "the rotating swash plate" and "the non-rotating swash plate" do not have a proper antecedent basis. Claim 4 has been amended to depend from claim 1, thereby providing a proper antecedent basis for each of the noted terms.

Claim 22 has been objected to because the term "the mast" does not have a proper antecedent basis. Claim 22 has been canceled, thereby rendering this objection moot.

Claim 33 has been objected to because the term "the hub" does not have a proper antecedent basis. In response, claim 33 has been amended to recite "a hub" in lieu of "the hub."

Applicant gratefully acknowledges the allowance of claims 13-20 by the Examiner.

Claims 1, 2, 4, 12, 21, 23, 24, 30, 31, and 33 have been rejected in the office action under 35 U.S.C. § 102(b) as being anticipated by U.S. patent no. 2,861,640 (du Pont). Claims 2 and 24 have been canceled, thereby rendering this rejection moot with respect to those claims.

Claims 3, 5-11, 22, 25-29, and 32 have been objected to as being dependent upon a rejected base claim. Applicant gratefully acknowledges the Examiner's statement that these claims would be allowable if rewritten in independent form to include all of the limitations of their base claims and any intervening claims.

Claim 1, the base claim of claim 3, has been amended to incorporate all of the limitations of claim 3 and intervening claim 2.

Claim 21, the base claim of claim 22, has been amended to incorporate all of the limitations of claim 22, with the following exception. Amended claim 21 recites a plurality of ball bearings for pivotally coupling the hub to the gimbal. Original claim 22 recites a plurality of ball bearings for pivotally coupling the hub to the mast.

Claim 23, the base claim of claim 29, has been amended to incorporate all of the limitations of claim 29 and intervening claim 24.

Claim 31, the base claim of claim 32, has been amended to incorporate all of the limitations of claim 32, with the following exception. The term "universal joint" appearing in original claims 31 and 32 has been replaced in amended claim 31 with "constant-velocity joint."

Applicant therefore respectfully submit that claims 1, 21, 23, and 31 are allowable in accordance with the Examiner's remarks at page 6, lines 12-20; and page 7, lines 1 and 2 of the office action. Withdrawal of the rejection of claims 1, 21, 23, and 31 (and claims 4, 12, 30, and 33, which depend from claims 1, 23, or 31) under 35 U.S.C. § 102(b) is respectfully requested.

New claim 37 recites a plurality of bearings, wherein the hub pivots in relation to the gimbal by way of the bearings. Applicant therefore respectfully submits that new claim 37 is allowable in accordance with the Examiner's comments at page 6, lines 16-18 of the office action.

New claim 40 includes all of the limitations of claim 10 and claim 1, the base claim of claim 10, with the following exception. Original claim 10 recites a second swash plate, while new claim 40 recites a second swash plate assembly. Applicant therefore respectfully submits that new claim 40 is allowable in accordance with the Examiner's remarks at page 7, lines 3-5 of the office action.

New claim 41 recites the hub having an inner circumferential surface that defines a central opening that receives the gimbal. Applicant therefore respectfully submits that new claim 41 is allowable in accordance with the Examiner's remarks at page 7, lines 6 and 7 of the office action.

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New claim 43 recites controlling an angle between a plane of rotation of the rotor blades and the fuselage using a first swash plate assembly and an actuator mechanically coupled to the first swash plate assembly and the hub, and controlling the pitch of the rotor blades in relation to the hub using a second swash plate assembly mechanically coupled to the rotor blades. Applicant therefore respectfully submits that new claim 43 is allowable in accordance with the Examiner's remarks at page 7, lines 3-5 of the office action.

Claims 34-36 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. patent no. 2,806,662 (Yonkers).

Claim 34 has been amended to recite altering an angle between a plane of rotation of the rotor blades and the drive shaft. Yonkers discloses a propeller hub (25) that carries propeller blades (26). The rotor (25) is attached to a shaft (20), and therefore tilts *with* the shaft (20). Yonkers spec. at col. 1, lines 33-38. *See also* Yonkers spec. at col. 2, lines 1-40; and Figs. 3 and 4 of Yonkers. Applicant therefore respectfully submits that Yonkers neither teaches nor suggests altering an angle between a plane of rotation of rotor blades and a drive shaft as recited in claim 34 of the present application. Withdrawal of the rejection of claim 34 (and claims 35 and 36, which depend therefrom) under 35 U.S.C. § 102(b) is respectfully requested.

A notice of allowability is respectfully requested.

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